

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 2-9 are presently pending in this case, Claims 2-9 having been amended by way of the present Amendment. Claims 6-9 have been withdrawn from consideration, but depend from elected independent claims. Care has been taken such that no new matter has been entered.

The claims have been amended for minor informalities. Accordingly, the Applicants respectfully request entry of the amendments set forth herein as they are believed to place the application into condition for allowance, or into better condition for appeal.

At the outset, the Applicants note that the outstanding final Official Action includes a rejection under 35 U.S.C. 112, first paragraph, of the limitations “the supply of said component is resumed from said main component supply device irrespective of said components being left in said secondary component supply device.” The Official Action then notes in conjunction with the written description rejection of this limitation that this limitation was given no patentable weight (page 2 of the Official Action), and the discussion of the prior art rejections under 35 U.S.C. §§102 and 103 provided no citation of a reference teaching or even suggesting the above limitation. The Applicants respectfully submit that this limitation should have been considered for patentability purposes under 5 U.S.C. §§102 and 103, regardless of the written description rejection, and therefore the Applicants respectfully request the withdrawal of the finality of the outstanding Official Action so that

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

the Applicants can be provided with a consideration of the patentability of such a limitation, as Applicants' are entitled.

MPEP §2193.01 III. notes that “[r]egardless of the outcome” of the determination regarding the written description requirement, “Office personnel must complete the patentability determination under all of the statutory provisions of title 35 of the U.S. Code.” MPEP 2163.06 I. further notes, with regard to a written description requirement rejection based on a finding of new matter as in the present Official Action, “[t]he examiner should still consider the subject matter added to the claim in making rejections based on prior art since the new matter rejection may be overcome by applicant.” Accordingly, the Applicants respectfully submit that the lack of any patentable weight or consideration of the rejected limitation was improper, and rendered the outstanding Official Action incomplete. Thus, the Applicants respectfully request the withdrawal of the finality of the Official Action and full consideration of all of the limitations recited in the claims.

In the outstanding Official Action, Claims 2-5 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. More specifically, the phrase “the supply of said component is resumed from said main component supply device irrespective of said components being left in said secondary component supply device” was rejected as being new matter. The Applicants respectfully disagree with this assertion.

The original disclosure includes a flow chart as shown in Figure 3 that clearly teaches that when replenishment of components to the main supply device is completed (YES at step 122), the supply of components from the secondary supply device is stopped at step 124 (in

which state components are left in the secondary supply device as a matter of course), and that then, return is made to step 108 to use the components being stored in the main supply device. Thus, the flow chart shows that components are taken from the secondary supply device in step 120 and the determination is constantly being made at step 122 as to whether the main supply device has been replenished, and if the main supply device has in fact been replenished, then the supply is resumed from the main supply device regardless of whether components remain in the secondary supply device. The determination regarding when supply is resumed from the main supply device is made based on whether the supply device has been replenish, as is evident from a review of step 122 in Figure 3, and thus the determination is irrespective of components being left in the secondary supply device.

Additionally, page 14, third paragraph, of the specification describes as follows:

“...In response to this signal, the controller 50 controls the component mounding device 40 to discontinue picking up the electronic components from the secondary component supply device 32 (Steps 122 and 124), and instead, to resume picking up the electronic components from the component supply device 31 having been designated as the main component supply device, and to mount the picked-up electronic components at the target positions on the circuit board. (Step 108)”

The same is described on page 15, second paragraph through page 16, first paragraph.

Thus, the Applicants respectfully submit that the original disclosure clearly provides written description support for the subject matter at issue, and that no new matter has been entered. The original disclosure clearly conveys to one of ordinary skill in the art that the inventors had possession of the claimed subject matter at the time the application was filed. The disclosure also enables a person of ordinary skill in the art to understand as a matter of course that since the determination regarding when the picking-up of the electric components from the secondary component supply device is discontinued is based on the replenishment

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

of the main supply device and not on the supply in the secondary supply device, then electronic component can be left in the secondary component supply device and that the above determination is irrespective of the supply in the secondary component supply device. Accordingly, the Applicants respectfully request the withdrawal of the written description rejection.

Furthermore, the Applicants note that the terminology used in the independent claims has been revised; however, the claims still satisfy the written description requirement. For example, Claims 2-4 recite “switching control means for performing a switching control so that the components are supplied from said main component supply device during an ordinary mounting operation, and the components are supplied from said secondary component supply device when the component supply from said main component supply device is discontinued, wherein said switching control means discontinues the component supply from said secondary component supply device and resumes the component supply from said main component supply device when said main component supply device is replenished.” These features are clearly disclosed in Figure 3 and the corresponding description thereof in the specification.

Claim 2 was rejected under 35 U.S.C. 102(e) as being anticipated by Mimura et al. (U.S. Patent No. 6,779,259). For the reasons discussed below, the Applicants request the withdrawal of the anticipation rejection.

The Applicants note that a claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference. As will be demonstrated below, the Mimura et al. reference clearly does not meet

each and every limitation of independent Claim 2.

Claim 2 of the present application advantageously recites an electronic component mounting apparatus comprising, among other features, designation means for designating a main component supply device and a secondary component supply device, and switching control means for performing a switching control so that the components are supplied from said main component supply device during an ordinary mounting operation, and the components are supplied from said secondary component supply device when the component supply from said main component supply device is discontinued, wherein said switching control means discontinues the component supply from said secondary component supply device and resumes the component supply from said main component supply device when said main component supply device is replenished. The Mimura et al. reference fails to disclose all of the above limitations.

The Mimura et al. reference describes an apparatus for mounting electronic components that includes a first parts feeding section (1) and a second parts feeding section (2). The Mimura et al. reference describes using the first parts feeding section (1) to supply the components until it runs out of components, and then switching the supply of components to the second parts feeding section (2). While the second parts feeding section (2) is being used, the first parts feeding section (1) is being replenished with components. The apparatus of the Mimura et al. reference continues to supply components using the second parts feeding section (2) until the second parts feeding section (2) runs out of components, and thereafter switches the supply of components back to the first parts feeding section (1). (See column 5, line 31, through column 6, line 13.)

The Mimura et al. reference states at column 5, lines 50-67, that:

During the time period the mounting operation is performed with the second parts feeding section 2, the first parts feeding section 1 is at a halt, and the parts cassettes 3 are replaced for preparation of restarting the feeding operation with the first parts feeding section 1. As the mounting operation is repeated, ***component exhaustion will occur*** at the second parts feeding section 2, ***and when this is detected at step S14, the mounting head 6 is moved back to the first parts feeding section 1***, to which components have been replenished. Accordingly, the component mounting operation can be carried on further. Similarly, during the time period the mounting operation is performed with the first parts feeding section 1, the parts cassettes 3 are replaced at the second parts feeding section 2. Thus the mounting operation can be continued even when components are ***exhausted again*** at the first parts feeding section 1, by transferring the mounting head 6 to the second parts feeding section 2. (Emphasis added.)

Thus, the Mimura et al. reference is designed to use the two feeding sections (1, 2) in an alternate fashion, and to continue the use of each component feeding section until that feeding section ***is exhausted of*** components before switching to the other feeding section. (See column 5, lines 31-38.) The Mimura et al. reference does not disclose a device that performs switching from a secondary supply to a main supply based on replenishment of the main supply, since Mimura et al. reference is configured to switch supplies based on exhaustion of the current supply and not replenishment of another supply.

Accordingly, the Applicants submit that the Mimura et al. reference fails to disclose or even suggest switching control means for performing a switching control, wherein the switching control means ***discontinues*** the component supply from the secondary component supply device and ***resumes*** the component supply from the main component supply device ***when the main component supply device is replenished***, as recited in Claim 2. Therefore, since the Mimura et al. reference does not disclose all of the limitations recited in Claim 2, the Mimura et al. reference does not anticipate Claim 2.

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

Thus, the Applicants request the withdrawal of the anticipation rejection of Claim 2, and the claims that depend therefrom.

Claim 3 was rejected under 35 U.S.C. 102(e) 35 U.S.C. 103(a) as being unpatentable over Mimura et al. in view of Young (U.S. Patent No. 4,631,812). Claims 4 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura et al. in view of Kitamura et al. (U.S. Patent No. 5,740,604). For the reasons discussed below, the Applicants request the withdrawal of the obviousness rejections.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations. The Applicants submit that a *prima facie* case of obviousness cannot be established in the present case because the references, either when taken singularly or in combination, do not teach or suggest all of the claim limitations.

Independent Claims 3 and 4 of the present application advantageously recites an electronic component mounting apparatus comprising, among other features, designation means for designating a main component supply device and a secondary component supply device, and switching control means for performing a switching control so that the components are supplied from said main component supply device during an ordinary mounting operation, and the components are supplied from said secondary component supply

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

device when the component supply from said main component supply device is discontinued, wherein said switching control means discontinues the component supply from said secondary component supply device and resumes the component supply from said main component supply device when said main component supply device is replenished.

For the reasons discussed above with respect to Claim 2, the Applicants submit that the Mimura et al. reference fails to disclose or even suggest switching control means for performing a switching control, wherein the switching control means *discontinues* the component supply from the secondary component supply device and *resumes* the component supply from the main component supply device *when the main component supply device is replenished*, as recited in Claims 3 and 4.

Furthermore, with regards to the obviousness rejection of Claim 3, the Applicants submit that the Young reference fails to supplement the above deficiency in the teachings of the Mimura et al. reference. The Young reference describes an apparatus for the automatic assembly of electronic components that includes a substrate transport mechanism for conveying variously sized substrates to a robotic component assembly machine. While the Young reference makes a cursory mention of receiving components from a storage location (see, e.g., column 4, lines 38-46), the Young reference does not disclose or suggest main and secondary component supply devices, or switching control means for performing a switching control, wherein the switching control means discontinues the component supply from the secondary component supply device and resumes the component supply from the main component supply device when the main component supply device is replenished, as recited

in Claim 3.

Therefore, the Applicants submit that a *prima facie* case of obviousness has not been established in the present case because the Mimura et al. reference and the Young reference, either when taken singularly or in combination, do not teach or suggest all of the limitations recited in Claim 3. Accordingly, the Applicants request the withdrawal of the obviousness rejection of Claim 3.

Furthermore, with regards to the obviousness rejection of Claim 4, the Applicants submit that the Kitamura et al. reference fails to supplement the above deficiency in the teachings of the Mimura et al. reference. The Official Action cites the Kitamura et al. reference to show the provision of a table exchange means (17) for replenishment in an electronic component mounting system, which is cited for the teaching of the component rack of the present invention. While the Kitamura et al. reference describes supply tables, the Kitamura et al. reference describes replacement of a table based on exhaustion of the components thereon or change in the type of component needed (see, e.g., column 4, lines 55-65), and not the designation of main and secondary component supply devices or switching control means for performing a switching control, wherein the switching control means discontinues the component supply from the secondary component supply device and resumes the component supply from the main component supply device when the main component supply device is replenished, as recited in Claim 4.

Therefore, the Applicants submit that a *prima facie* case of obviousness has not been established in the present case because the Mimura et al. reference and the Kitamura et al.

reference, either when taken singularly or in combination, do not teach or suggest all of the limitations recited in Claim 4. Accordingly, the Applicants request the withdrawal of the obviousness rejection of Claim 4.

The present invention provides a unique apparatus in which a main component supply device is designated and the invention is configured to use the main component supply device on a priority basis. Thus, the operator can devote himself to replenishing components in the main component supply device, which can run short of components at a higher frequency than the secondary component supply device, and the operator is relieved of frequently moving to the secondary component supply device side for component replenishing works. (See page 15, lines 5-21, of the present application.) Consequently, it can be realized that the operator can perform the component replenishing work efficiently and easily.

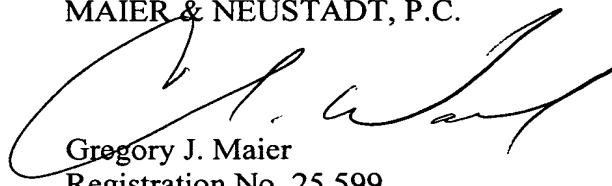
Claim 5 is considered allowable for at least the reasons advanced for Claim 2 from which it depends, and as noted above, the Kitamura et al. reference fails to supplement the deficiencies in the teachings of the Mimura et al. reference noted above with respect to Claim 2, from which Claim 5 depends.

Application Serial No.: 10/669,552
Reply to Office Action dated December 21, 2006

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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